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Audio

FULL DETAILS AND TRANSCRIPT

A School Culture of Mathematics

Mountain Ridge Middle School, Colorado • May 2008

Topic: National Math Panel: Critical Foundations for Algebra
Practice: Mathematics Preparation for Algebra

Highlights

- School's response when they realized they were not making gains in mathematics
- Using district math coordinator to build culture of mathematics
- Embedded staff development based on reviewing data
- Weekly meetings around sharing strategies
- Value of collecting ongoing data and adjusting instruction
- Value for principal of conducting classroom observations and debriefing, with math expert, to support supervision of math instruction

About the Site

Mountain Ridge Middle School

Highlands Ranch, CO

Demographics

83% White

7% Hispanic

7% Asian

2% Black
1% Native American
3% Free or Reduced-Price Lunch

Douglas County Schools have developed K-12 Essential Learnings to focus on the most important "checkpoints," and to ensure that students are mastering key topics and skills. Mountain Ridge Middle School illustrates the results with:

- Essential Learnings,
- Understanding algebra as the generalization of arithmetic,
- Use of weekly data review and strategy sharing to build a culture of mathematics,
- Coaching of principal, by math supervisor, to observe the mathematics classroom,
- Separate grades on effort and content knowledge in reports to parents,
- Responsibility placed on students, for reporting to parents, through student-led conferences.

Full Transcript

I am Kara Shepherd. I am the principal at Mountain Ridge Middle School in Douglas County, which is located in Highlands Ranch, Colorado.

I have actually had the privilege of opening Mountain Ridge, seven years ago, and have worked with the math department throughout that time. There is a couple of things that I would share, in regards to how we got to where we are at, that I really feel have made a difference. We had always established school improvement plan goals, and looked at the math data, and really saw that over probably the first four years, we just were not making any gains even though as a department, we were all focused. I felt like I had teachers saying, "We were doing everything we can, that we know how to do." And it was finally one of those questions that you put on the table and you say, "So, what can we do if we are doing everything we know how to do?" and, it was that aha to say, "I am open to looking at whatever."It was that point that the department—as an entire department, all eight teachers at that time—committed to bringing in Larry Linnen, our Math Coordinator. And every single department member committed to four days of training—it was eight days total, four days each year, where we did get subs for them and really had Larry focus on embedding a culture of mathematics that, even though we had the curriculum in place, I don't believe that they really had a sense of how to use that as effectively as they could have been.

So, Larry, over the course of two years, worked with the department all the time then. We were gathering data, kind of monitoring those results, and I think to their credit, one of the things that had made a difference was, as a department, they were willing to look at each other's data and share the successes, and share areas that they just weren't as strong in. And so they've really broken down all of the lines that can be there, the sensitivity to looking at data publicly, and were openly discussing and sharing where their

strengths were -- so we had established some systems of data collection. In addition, as a staff, our staff is committed to a minimum of 45 weeks embedded staff development: So they met once a week, every week, to talk about math instruction in the classroom and what they had tried, what they had learned from Larry, what seemed to be working, where those struggles were, those types of things.

We certainly saw some gains in terms of our CSAP data and our mathematics scores. More than that, I think it was an understanding on teachers' part about the value of collecting ongoing data on students and adjusting instruction as needed. And I think it was that whole collaborative piece of really looking at curriculum-based measurements, "What are we getting from the data?" and "What do we need to be doing differently?" That prompted some great dialogue in their staff development time, which allowed them to make some changes over the course of time.

One of the things, as an administrator, that I probably would say is one of the most valuable learning experiences for me is: Larry actually took an entire morning and, as an administrator who supervises math instruction, walked with me; and we would go into a classroom, and observe for 15-20 minutes, and then he and I would come out of the classroom and debrief about what we saw, and what kind of feedback I should be giving teachers to move them forward to those next steps. This is something where you might want to push or ask the teacher a little about this. As a supervisor of math instruction, I grew more from that one-half morning with Larry—in terms of what should we be looking for in the classrooms.

Over the course of the years that we have been working on this, we have seen considerable changes in terms of walking into a math classroom, and what do you see happening in that. At this point, for the district, our school is one of the model schools, that they use in teaching other supervisors what to look for, when they come into the classrooms and for math instruction.